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AUTHOR Krotosky, Paul; Johnson, Jeannie G.

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ABSTRACT

Designed to enable students to develop knowledge of personal strengths and weaknesses and to be able to understand the relationship of these characteristics to educational and vocational choices, this guide presents an introductory program on vocations using a thematic interdisciplinary approach to career awareness. It is suggested that the program be conducted by a team composed of a math, a science, a social studies, and an English teacher, and a program coordinator, all of whom will focus on a central theme based on a specific occupational cluster. This guide focuses on the marketing and distribution cluster using the fast foods industry as an example. The five following units are presented with each including activities relevant to the fast foods industry: guidance, math, science, social studies, and English. Each unit contains unit concepts, behavioral objectives and suggested activities and activity sheet. A bibliography, sources of additional information, a vocational interest inventory form, and a guide for vocational guest speakers are also included. (BL)

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State of New Jersey
Department of Education
Division of Vocational Education

INTRODUCTION TO MARKETING

FOR 9th GRADE STUDENTS

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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Paul Krotosky
Jeannie G. Johnson

Wedgewood Middle School
Washington Township, New Jersey

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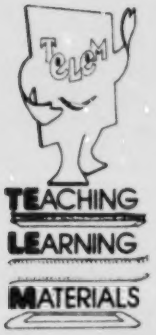

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PREFACE

This publication is one of a series of curriculum documents in career education written under the statewide curriculum development project conducted by the New Jersey Curriculum Management Center. Materials developed under this project are published by the New Jersey Vocational-Technical Education Curriculum Laboratory in order to ensure the widespread availability of these materials to practitioners in the field at a reasonable cost.

Dr. Joseph F. Kelly

Project Director
New Jersey Curriculum Management Center

TABLE OF CONTENTS

Page

Introduction 1

Introduction to the Marketing and Distribution Cluster 6

Fast Foods 7

Guidance Unit
- A. Concepts 8
- B. Behavioral Objectives: Evaluation 9
- C. Activities 10

Math Unit
- A. Concepts 14
- B. Behavioral Objectives: Evaluation 15
- C. Activities 17

English Unit
- A. Concepts 33
- B. Behavioral Objectives: Evaluation 34
- C. Activities 35

Social Studies Unit
- A. Introduction 38
- B. Concepts 40
- C. Resources 41
- D. Behavioral Objectives: Evaluation 42
- E. Activities 43

Science Unit
- A. Introduction 47
- B. Concepts 49
- C. Resources 57
- D. Behavioral Objectives: Evaluation 61
- E. Activities 62

Bibliography 80

Sources of Additional Information 82

Interest Inventory 83

Guide for Vocational Speakers 86

Unit Evaluation 87

INTRODUCTION

A. Philosophy

One of education's major goals is preparation for life's work. The classroom teacher is in a strategic position to relate the subject matter being taught to various occupations and life tasks which each student can identify. The integration of the Introduction to Vocations Program into the regular educational sequence will tie together school subjects, making them more meaningful for the student, thus creating increased student motivation and interest.

B. Theory

According to the Developmental Theory of Career Development, middle school students are leaving the fantasy stage of career development and are entering the realistic stage of career development.* Between these two major stages is an intermediate stage known as the exploratory stage. The middle school with a career awareness program such as the one proposed will greatly assist the student in the exploratory stage.

Career will be explored using the cluster-level approach. The fifteen job clusters into which each job can be classified are:

1. Health Careers
2. Environmental Careers
3. Manufacturing Careers
4. Transportation Careers
5. Communications and Media Careers
6. Marketing and Distribution Careers
7. Agricultural-Business and Natural Resources Careers
8. Construction Careers
9. Marine Science Careers
10. Public Service Careers
11. Personal Service Careers
12. Hospitality and Recreation Careers
13. Fine Arts and Humanities Careers
14. Consumer and Home-making Related Careers
15. Business and Office Careers

Each cluster is further divided into levels based upon the responsibility, education and prestige involved in an occupation. The levels can be classified as:

1. Upper managerial and professional
2. Middle managerial and professional
3. Semi-professional
4. Skilled
5. Semi-skilled
6. Unskilled

* Jones, Arthur, *Principles of Guidance*, McGraw Hill, 1962, pp 164-66

C. General Operation of the Program

The Program will operate using a thematic interdisciplinary approach to career awareness. The team will be composed of a math, a science, a social studies and an English teacher, who along with the program coordinator, will develop a central theme based upon one of the occupational clusters. Students will be involved in planned activities in each class revolving around a central theme. The coordinator will assist the team by organizing the obtaining resources such as:

A. Outside speakers
B. Books
C. Magazines
D. Filmstrips
E. Slides
F. Movies
G. Records
H. Tapes
I. Occupational Literature
J. Field Trips

D. Terminal Objectives
(Adopted from 1970 Proceedings of National Conference on Guidance)

1. The student will be able to differentiate his or her own characteristics (interests, values, abilities and personality characteristics) from those of others and will identify broad occupational areas and levels which may be more appropriate.

2. The student will be able to identify between the several broad occupational areas in terms of:
   a. a potential satisfaction each might offer
   b. the nature of work tasks performed
   c. the future impact technology might have on particular occupational areas
   d. the contribution and importance of particular occupational areas to our society
   e. the future demand for workers in broad occupational areas.

3. The student will be able to identify different educational areas that are available both in the immediate and more distant future, the nature and purposes of each, the avenues toward which each can lead, and tentatively assess what each offers in terms of possible vocational choices. The student will be able to demonstrate how knowledge and skills acquired in different subject matter areas relate to performing different work roles. They will be able to recognize the personal and social significance that work has in the lives of individuals at varying levels within the occupational structure.

4. The student will be able to identify future decisions which must be made in order to reach different goals. Be able to identify those personal and environmental efforts that impinge upon future decisions. Be able to assess possible steps which might be taken in minimizing negative factors and maximizing positive ones and will consider the possible consequences each occupation offers.

5. The student will be able to make a choice of a broad occupational area to study in greater depth.

6. The student will be able to differentiate between the major occupations that make up a broad occupational area and will make some differentiation of these occupations in terms of
   a. the amount and type of education needed for entrance,
   b. the content, tools, setting, products or services of these occupations,
   c. their value to society
   d. their ability to provide the type of life style they deserve
   e. to what extent they can satisfy their interests and values
   f. in what ways they do and do not seem appropriate.

7. The student will be able to select appropriate education and training in light of tentative broad career purposes.

E. Proposed Activities and Strategies to Aid Accomplishment of the Terminal Behavioral Objectives

1. Planning field trips to observe workers in action.

2. Reading books on various occupational clusters – fiction and non-fiction.

3. Showing films, filmstrips and recordings illustrating occupational fields.

4. Using the subject matter in various classes to aid vocationalization – class discussions concerning the relationship of subject matter and selected careers, cluster concept on interdisciplinary integration based on a topic related to vocationalization such as the study of measurement.

5. Having exploratory student work experiences using the school as the main resource.

6. Having counseling contacts – individual and group.

7. Organizing Career Days – use of resource people in various occupations.

8. Using career information kits.

9. Creating a career resource center for student use.

10. Relating information to students concerning results from standardized testings.

11. Using films and filmstrips dealing with aptitudes, skills, interests, and their relationship to the world of work.

12. Using of films and filmstrips pertaining to various occupational roles, followed by discussion of questions such as:
    a. What does it take to do that job?
    b. Would I like it?
    c. Do I have what it takes?

13. Utilizing group counseling with a focus on problem solving in areas with which students can identify: Choosing curricula, choosing a college, how to study.

14. Studying societal problems related to the world of work.

15. Discussing films and filmstrip centered around the decision making process.

16. Utilizing occupational role playing.

17. Utilizing gaming techniques – life career game.

18. Using interest inventories.

F. Evaluation Techniques

1. Individual interviews
2. Group discussions
3. Observed behavior
4. Frequency of use of occupational information
5. Student self-ratings
6. Follow-up studies
7. Student questionnaire
8. Teacher and outside speaker evaluation

G. Summary

The Program is based on a systems approach. The chief philosophy underlining the program is that – one of education's goals is preparation for life's work. The teacher is in a strategic position to motivate students by coordinating occupational information with subject matter.

The theories used in this program are based upon Developmental Theories of Career Awareness. The program will utilize a thematic interdisciplinary approach in presenting each cluster.

The main objective is: The student will be able to develop knowledge of personal strengths and weaknesses and be able to understand the relationship of these characteristics to educational and vocational choices.

INTRODUCTION TO THE MARKETING AND DISTRIBUTION CLUSTER

The Marketing and Distribution cluster includes a wide range of occupations. Marketing and distribution occupations are those jobs related to the selling of a product and getting that product to the market or to the consumer. Examples of marketing and distribution jobs are listed below:

A. Buyer – the person who selects and purchases the merchandise that a store will sell.

B. Designer of displays in store windows and in store counters.

C. Copy person – the person who prepares advertising for a store.

D. Store manager – the person responsible for all phases of the operation.

E. Department manager – the person responsible for all phases of the operation of a part of a store (e.g., clothing department).

F. Credit accountant – the person responsible for the transfer of monies to keep the operation moving.

G. Comparison shopper – the person responsible for seeing that the prices in his/her store are lower than the prices in other stores.

H. Warehouse person – the person responsible for the inventory of goods in the warehouse and the distribution of those goods to the market and consumer.

I. Salesperson – the person in charge of selling of a product or service.

According to a recent survey, more than 60% of all people are engaged in marketing and distribution occupations, making the cluster the most popular.

After High School, What? 1973 R.L. Polk & Co., Nashville, Tenn.

FAST SUCCESS – FAST FOODS

The fast-foods industry is an example of the marketing and distributing cluster as defined by the U.S. Department of Labor. This type of business is rapidly expanding and affects the community both socially and economically.

In interviewing employees, the students will find a wide range of career opportunities beginning with part time student employment as a member of the "crew" to managerial positions at both the local and higher levels in the organization.

There is an opportunity for "fast-success" within the industry due to its rapid growth and acceptance among young people. We found one manager of a high volume business to be 20 years old.

The full aspect of fast-foods encompasses occupations in other clusters. The industry lends itself well to examination from the points of view of the academic subjects usually found in middle school.

CONCEPTS – GUIDANCE UNIT

1. Fast-food related occupations.
2. Sources of occupational information.
3. Interviewing and obtaining information.
4. Observing and obtaining information.
5. The occupational brief.
6. Using the classified section of the newspaper to obtain information.

BEHAVIORAL OBJECTIVES GUIDANCE

1. After completing the fast-foods cycle, the student will be able to list and briefly describe ten occupations related to the fast-foods industry to the satisfaction of the instructor.

2. Using an occupational brief outline developed by the class, the student will be able to write an occupational brief relating to a fast-foods occupation to the satisfaction of the instructor.

3. Given an interview sheet with prepared questions, the student will interview one employee during a class trip to several fast-food establishments and summarize the employee's responses to the satisfaction of the instructor.

4. Given an observation-inference sheet, the student will seek answers to the questions prepared by the class relating to the operation of a fast-food establishment. The student will complete one observation-inference questionnaire for each establishment visted by the class to the instructor's satisfaction.

GUIDANCE ACTIVITIES

1. A class discussion of sources of occupational information that is available in the school will be conducted by the guidance counselor. The counselor will have each student review several sources of career information. The student is to list ten different subheadings used in the resources consulted that give important information concerning an occupation.

2. Using the information gathered in guidance activity 1, the teacher will use class discussion techniques to have students organize an occupational brief outline to be used in a later activity.

Sample of Occupational Brief Outline

A. Name of occupation
B. D.O.T. number
C. Definition of the occupation
D. Duties (nature of the work)
E. Education or training required
F. Working hours
G. Earnings and fringe benefits
H. Method of getting into the occupation
I. Opportunities (outlook)
J. Major advantages of the occupation
K. Major disadvantages of the occupation
L. Sources consulted to prepare this brief
M. Sources of additional information

3. Students will visit several fast-food establishments. The class will be divided into groups of five students. At each visitation the group will be responsible for interviewing one employee. Each group must decide on which occupation to report and must interview at least three employees having the same job at three different locations. Each group will complete an interview report for each person interviewed. Each group will also complete an observation-inference report for each fast-food establishment visited. (See attachments.)

4. The student will cut ads out of the classified section of the newspaper relating to marketing and distribution occupations in the fast-food industry. The student will place these ads in a booklet that will become a specialized classified ad project. Information obtained from these advertisements can be used in a later activity, that of preparing an occupational brief.

5. Using the occupational resources available in the school, the special fast-food resources in the class (see list of resources), the information received from the requests written in English class to the sources of additional information obtained from the field trips and employee interviews, write an occupational brief following the outline developed in guidance activity 2. The brief should also include a cover page illustrating some aspect of the occupation.

6. Students will learn about different occupations related to the fast-food industry by playing a group game. The name of the game is *What's My Line* and is played in similar fashion to the television version. The teacher should list on individual cards occupations related to the fast-food industry. One student will stand in front of the class and select a card. The student will answer student questions concerning his occupation with only a yes or no answer. A student can continue to ask questions until a negative response is received. The student answering questions receives one point for each negative answer given and five points for each incorrect occupational guess.

7. List ten occupations related to the fast-food industry and describe each with 50 words or less.

INTERVIEW SHEET

Group # _____

Name _____ Date _____

Name of person being interviewed _____

Job title _____

Name of Employer _____

I. Nature of work
   - A. What are job duties?
   - B. Do you work indoors or outdoors?
   - C. Is the work seasonal?

II. Job requirements
   - A. How much education is required?
   - B. Where is education available?
   - C. What subjects should be studied to help with the job?
     1. High school
     2. Post high school
   - D. What outside school (on the job) training is required?
   - E. Where is training available?
   - F. What is the cost of education and training?
   - G. Are there any entrance requirements such as
     1. test
     2. medical examination
     3. license
     4. other
   - H. Must you join a union?

III. Working conditions
   - A. What are the hours?
   - B. Are working conditions hazardous?
   - C. Does the work require great physical effort?
   - D. Does the work require great mental effort?

IV. Workers qualifications
   - A. What type of personality is desired?
   - B. What physical traits are desired?

V. Earnings
   - A. What is starting salary?
   - B. What is the salary range in this position?
   - C. What are the fringe benefits?

Group # _____ Name _____

Observation-Inference: Fast-Foods Field Trip

I. Physical characteristics of building
   - A. Materials used in building.
   - B. Size of building.
   - C. (1) Area of parking lot.
     (2) Number of spaces
   - D. (1) Area of customer section of building.
     (2) Number of tables
     (3) Seating capacity

II. Business aspects
   - A. Number of customers per month
   - B. How many can be served per hour?
   - C. Location
   - D. Number of employees
   - E. Have food shortages affected business?
   - F. Has gas shortage affected business?
   - G. How much have prices risen in a year?
   - H. (1) What foods are offered?
     (2) Cost
   - I. What beverages are offered? Cost?
   - J. What is the most popular food?
   - K. How are foods advertised?
     (1) Inside
     (2) Outside
   - L. Has the restaurant been inspected for sanitary code?

III. Business practices
   - A. How is an order taken?
   - B. How long is the wait for an order?
   - C. How is the place kept clean?
   - D. Are the employees friendly?
   - E. The sanitary code requires that people not touch food with their hands or keep food where customers can sneeze on it. How is this requirement handled?

IV Other observations

CONCEPTS – MATH

1. Basic arithmetic operations
2. Calculation of percent of a number (sales tax)
3. Calculation of change
4. Determination of appropriate change
5. Completion of a customer bill
6. Bar graphs
7. Finding percent when the part and the total are known
8. Scale drawing.
9. Calculation of employee salary and take-home pay
10. Determination of profit or loss

BEHAVIORAL OBJECTIVES – MATH

1. Given a set of problems involving food costs and salestax rates, the student will be able to calculate the amount of tax and the total bill to an accuracy of 75%.

2. Given a set of problems, each indicating the customer's total food bill and the amount tendered, the student will be able to calculate the amount of change and indicate the number of each type of bill or coin used in making change. The performance level of the above activities will be 75% and to the satisfaction of the instructor, respectively.

3. Given a price list and five customer bill sheets, the student will calculate the total cost of each food item by multiplying the unit price by the number of each item ordered for each of the five given situations. The student will then determine the subtotal for each customer, the respective sales taxes, and the respective totals. Given the amount tendered by each customer, the student will calculate the change. The above activities are to be performed to the satisfaction of the instructor.

4. Given a brand of cookie sold on the student snack cart, the student will create a drawn or written advertisement to be used to increase sales of the product. This activity will be performed to the satisfaction of the instructor.

5. Given a sample bargraph form (Activity 5), the student will be able to graph the results of the student advertisement campaign to the satisfaction of the instructor.

6. After polling 15 people concerning their opinions of three fast-food chains and pooling their results with other class members in order to achieve a larger sample, the student will be able to summarize mathematically the results using percentages. They will list the number of people responding to each item on the given form and will create a similar chart to indicate the percent of all people in the sample giving each response. The above activity is to be performed to the satisfaction of the instructor. Calculations of percent are to be done with 75% accuracy.

7. Given a 200 foot square lot, the student will design and create to the scale 1/16 inch equals 1 foot,a fast-food establishment to the satisfaction of the instructor.

8. Given the hourly wages and the amount of hours worked in a week, the student will be able to calculate the employee's salary. Given employee deduction information, the student will also calculate the employee's take-home pay to the satisfaction of the instructor.

9. Given the costs of operating a fast foods establishment for five weeks on a weekly basis and given the amount of income for each of the five weeks, the student will be able to calculate and graph the profit or loss for each week. This activity is to be performed to the satisfaction of the instructor.

The state law states that there is a 5% salestax on all food purchases. If the cost of Mr. Smith's meal was $6.70, how much tax must he pay? What is the total cost of Mr. Smith's meal?

Discussion of problem:

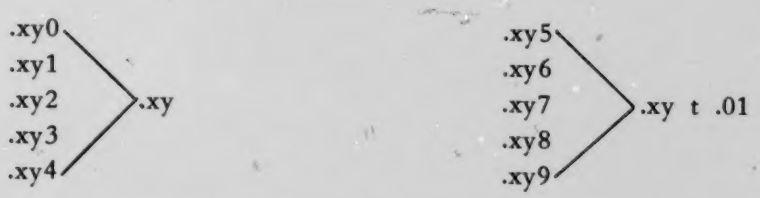
1. Percent (%) indicates the number of hundredths. 5% means .05 or 5 parts per hundred. 18% means .18 or 18 parts per hundred.

2. Change the percent or rate of tax to decimal form. In the above example, 5% should be changed to .05.

3. Multiply the sales tax (expressed in decimal terms) by the cost of the food (subtotal). In the above example:

$$\begin{array}{r} \$\ 6.70 \\ \times\ .05 \\ \hline .3350 \end{array}$$

4. Round off the above product to the nearest cent using the following chart:



In the above problem, .3350 will be rounded off to $.34. Therefore, Mr. Smith must pay $.34 sales tax on his meal.

5. To find the total cost of the meal, add the tax to the cost or subtotal of the meal. In the above example:

$$\begin{array}{rl} \$\ 6.70 & \\ \underline{\quad .34} & \text{tax} \\ \$\ 7.04 & \text{total} \end{array}$$

MATH ACTIVITY SHEET I

Subtotal of Food Item	Sales Tax Rate	Amount of Tax	Total
$ 1.00	5%		
$ 4.00	3%		
$ 7.70	8%		
$ 33.85	5%		
$ 27.17	12%		
$ 17.41	7%		
$ 52.66	5%		
$ 1.67	6%		
$ 0.58	5%		
$1125.50	9%		

1. **Amount ordered** – the number of each item to be purchased.

2. **Amount tendered** – the amount of money that the customer gives to the cashier.

3. **Change** – the amount of money to be returned to the customer calculated by subtracting the total from the amount tendered.

4. **Extension** – a cost determined by multiplying the unit cost by the amount ordered.

5. **Name of item** – the kind of food to be purchased.

6. **Sales tax** – an amount calculated by multiplying the subtotal by the tax rate (expressed in decimal form).

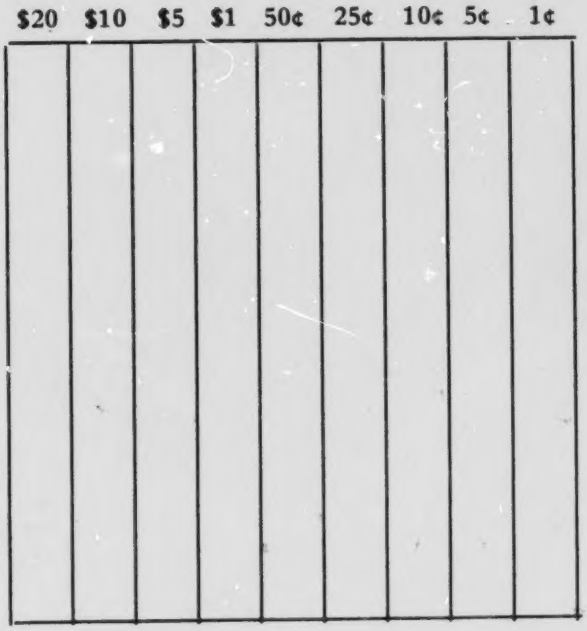
7. **Subtotal** – an amount found by adding all amounts in the extension column.

8. **Total** – the entire cost to the customer found by adding the sales tax to the subtotal.

9. **Unit price** – the cost of each item according to the pricelist.

Total Bill	Amount Tendered
$ 4.27	$ 5.00
$ 6.89	$ 10.00
$ 5.55	$ 5.60
$ 7.48	$ 8.50
$470.68	$500.00
$ 37.00	$ 50.00
$ 1.27	$ 2.50
$ 7.98	$ 10.00
$ 17.56	$ 20.75
$ 16.14	$ 17.25

Change – Bills – Coins



Indicate the number of each kind of bill or coin you would use to make change.

CUSTOMER'S BILL

Name of Item	Amount Ordered	Unit Price	Extension

Subtotal _____

Sales Tax _____

Total _____

Amount Tendered _____

Change _____

MATH ACTIVITY SHEET III

Using the price list below complete a customer's bill sheet for each of the following:
Sales tax rate = 5%

Customer A

3 Hamburgers
2 Giant Burgers/cheese
5 sm fries
2 sm sodas
1 lg soda
1 hot choc
1 lg shake

Amount tendered $10.00

Customer B

2 Ham Specials
10 pieces chicken
5 Roast beef
7 Giant Burgers
7 sm fries
7 lg fries
9 lg sodas
2 teas
3 coffees

Amount tendered $35.00

Customer C

8 pieces chicken
2 sm fries
2 large fries
1 small soda
1 lg soda
2 hot choc
4 apple pies

Amount tendered $5.00

Customer D

30 pieces chicken
10 sm fries
10 lg sodas

Amount tendered $15.00

Customer E

Make up a customer's bill for your own meal.
Do not spend more than $2.00.

MARKETING AND ADVERTISING

As explained in your English and Social Studies classes, one very important part of marketing is advertising. The effects of an advertising campaign must be measured to determine if it is successful. The branch of mathematics that teaches us how to measure the effects on the selling of a product is known as statistics. The person who works with statistics is called a statistician.

The next few activities will involve some statistical experiments in order for you to change and measure students' buying habits. Some of these activities will involve group work over a period of several weeks.

MATH ACTIVITY IV

The student snack cart has several types of 10¢ cookie packages for sale. The class is to select one kind of cookie and will advertise it using student made posters, student skits in other homerooms, announcements over the Public Address during homeroom. The class can decide on other methods to advertise the selected product.

Item selected for advertisement: _____

Sketch of advertisement: or written advertisement:

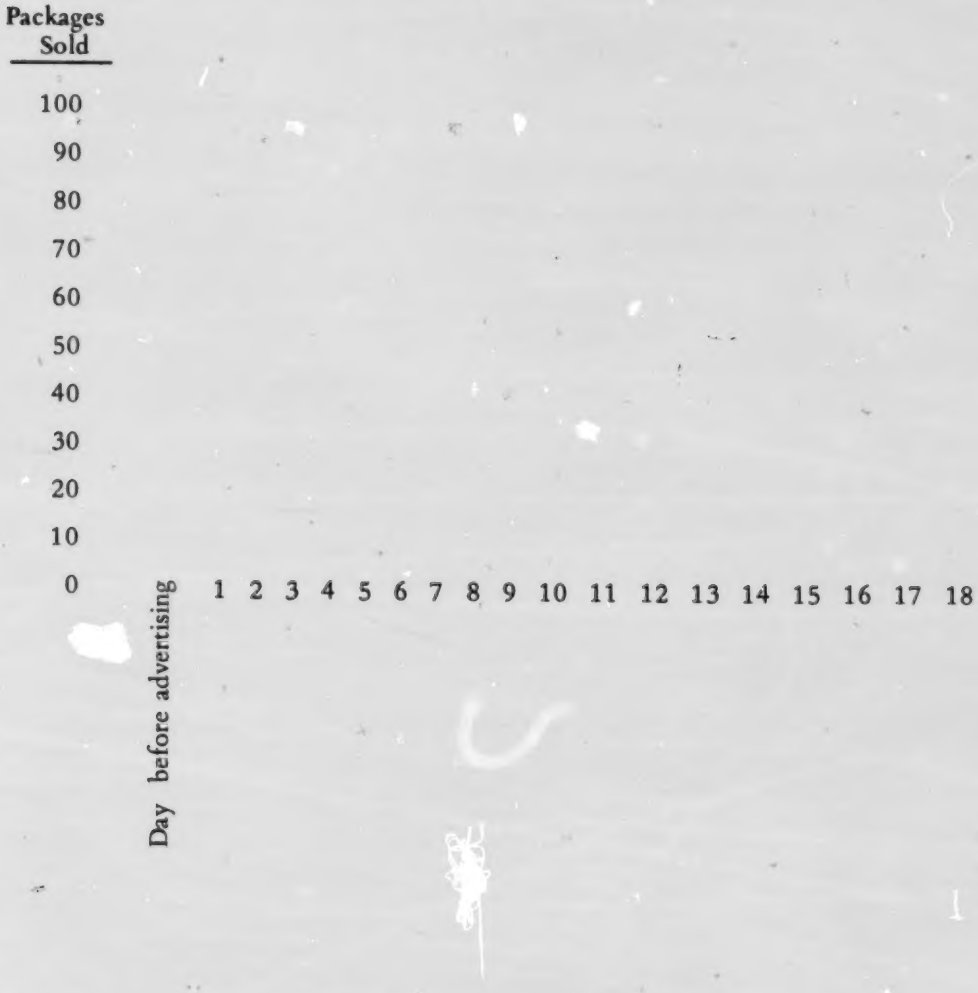
A market researcher uses mathematics to measure people's opinions. In this activity you will be involved in some market research by asking 15 people to rate different foods at three local fast-food establishments. You will also be asking questions related to non-food opinions. Complete the following chart. The class will complete a master chart in order to create a more accurate estimation of public opinion.

Indicate the total number of people giving each response.

	Fast-Food Chain Name		
	A	B	C
Best hamburger			
Best fries			
Best shakes			
Best chicken			
Best location			
Most appealing building			
Best advertising			
Most clean			
Best service			
Other opinions			
Totals			

Prepare a similar chart indicating the percent of the total sample giving each response.

A bar graph is a simple way for a statistician to evaluate the effects of an advertising campaign. Make a bar graph to show the results of the advertising campaign on the marketing of the selected kind of cookies.



A Group Project

McDoogal's Hamburgers Company has just purchased a lot 200 feet by 200 feet. You are to decide on the size of the restaurant, its location on the lot, and design parking facilities. You are to draw the plans using the scale 1/16 inch equals one foot. After the plans are drawn, you are to make a scale model using a heavy cardboard base. Indicate parking areas, exterior lighting, outdoor tables, and indoor arrangements.

The manager of a fast-food establishment has the responsibility over all phases of the operation. One of the manager's most important responsibilities is setting employee's working hours and using the amount of hours worked and the hourly wage to determine the employee's weekly salary. In the following activity, you are to first complete the salary chart for each employee by multiplying the number of hours worked by the hourly wage.

	Hours Worked								
Employee's Name	M	T	W	T	F	S	Total Hours	Hourly Rate	Salary
Paul Smith	6	6	6	8	8	8		$2.60	
John Doe	8	8	9	0	5	4		2.50	
Mary Johnson	9	0	0	9	9	9		2.75	
Joe Harris	8½	7½	6	6	5	5		2.80	
Betty Martin	7¼	6¾	0	0	0	9½		2.50	

Now that you calculated each employee's salary, you must determine the amount of income tax each must pay using the following charts.

Employee Name	Number of Dependents	Single or Married
Paul Smith	4	M
John Doe	1	S
Mary Johnson	2	M
Joe Harris	6	M
Betty Martin	3	M

Percent of Salary Deducted for Income Tax

Number of Dependents	1	2	3	4	5	6
Married	25%	22%	19%	16%	13%	10%
Single	30%	22%	17%	13%	10%	7%

Employee Name	Percent deducted	Amount deducted
Paul Smith		
John Doe		
Mary Johnson		
Joe Harris		
Betty Martin		

An employee's pension (retirement fund) and the social security tax are calculated similar to the calculation of income tax. Complete the following chart:

Employee	Salary	Pension%	Amt. Pension	Soc. Sec.%	Amt. S.S.
Paul Smith		2%		5%	
John Doe		3%		5%	
Mary Johnson		3%		5%	
Joe Harris		4%		5%	
Betty Martin		5%		5%	

Note: *Pension percentages vary due to differences in employee's age and sex.*

An employee's take home pay is determined by adding all deductions and subtracting that total from the employee's salary. Calculate the take home pay of the five employees. Make a chart indicating the employee's name, the percent and amount of deductions for each item discussed in this activity, the total of all deductions, and each employee's take home pay.

The fast-food owner and/or manager is in business to make money or a profit. If the amount of sales in one week is greater than the expenses, then the business has made a profit. To calculate a profit, you subtract the expenses from the sales. A loss is when the expenses are greater than the sales. To calculate a loss, subtract the sales from the expenses.

In this activity you are to calculate the profit and loss for each of five weeks using the sample profit and loss statement and the given information.

Profit and Loss Statement Week A

Total Sales		$ _____
Cost of goods sold	$ _____	
Sales tax	$ _____	
Operating expenses	$ _____	
Salaries	$ _____	
Rent/Mortgage	$ _____	
Property tax	$ _____	
Advertising	$ _____	
Insurance	$ _____	
Maintenance	$ _____	
Electric	$ _____	
Gas	$ _____	
Phone	$ _____	
Total expenses	$ _____	
Profit/Loss		$ _____

	1st Week	2nd Week	3rd Week	4th Week	5th Week
Total sales	$4500	$5678	$6789	$3459	$9872
Cost of goods sold	$ 590	$ 678	$ 897	$ 344	$1267
Sales tax	5% of the total sales				
Salaries	$2345	$2388	$3009	$2270	$3450
Rent/Mortgage	$ 330 ea. week				
Property tax	$ 150 ea. week				
Advertising	$ 500	$ 680	$ 400	$ 380	$ 569
Insurance	$ 125 ea. week				
Maintenance	$ 40	$ 66	0	$ 160	$ 45
Electric	$ 450	$ 475	$ 490	$ 480	$ 477
Gas	$ 75	$ 135	$ 100	$ 109	$ 180
Phone	$ 45	$ 17	$ 17	$ 29	$ 26

In the second half of this activity you are to graph the profit and loss for each of five weeks using the included sample graph.

PROFIT AND LOSS GRAPH

1. Business letter writing
2. Research procedures
3. Commercial advertising techniques
   a. costume making
   b. scenery construction
   c. skit writing
   d. acting
   e. filming
   f. taping
   g. performing in front of a group of peers

1. Given a business letter format the student will be able to write a business letter requesting occupational information to the satisfaction of the instructor.

2. After being instructed on the use of occupational resources such as *The Encyclopedia of Careers*, the student will be able to select those resource agencies, organizations or companies to solicit for occupational information related to fast-foods.

3. Working in groups of approximately five students, each group will write and perform a commercial skit of one-two minutes in duration. The skit will contain many elements of a professional advertisement, such as costumes, scenery and slogans. The skit will be taped and filmed and presented to the class.

LANGUAGE ARTS

Activity 1

Using the business letter on the following page, the student is to write a letter to three organizations or agencies requesting occupational information. The agencies or organizations can be found by consulting the occupational resources in the classroom, such as:

The Encyclopedia of Careers
The Occupational Briefs
Resource Books

Each student must submit all letters to the teacher before mailing, along with a properly addressed envelope.

BUSINESS LETTER FORM

18 Smith Street
Sewell, N.J. 08080
April 29, 1974

John Doe Company
1954 King Street
Washington, D. C. 00011

Dear Sir:

I am studving about different careers in the fast-food area. I am interested in obtaining information concerning a career in marketing. Please send me any information that you have available on the subject.

Thank you for your prompt attention.

Very truly yours,

John Jones

JJ/rch

Activity 2

Working in groups of five students, each group is to write a skit for a commercial advertising a fast-food establishment.

The script is to be between one and two minutes in duration. All students must participate in the skit. Students are to write and memorize their lines and must create costumes. The skit will be performed in front of the class. The final performance will be taped and filmed in order for the students to be able to critize their work.

The skit should contain some catchy slogan or song so that the audience will remember the product.

FAST-FOODS SOCIAL STUDIES UNIT

The social studies unit examines the social and economic factors of the fast-foods industry as an example of the Marketing and Distributing career cluster.

Through survey, interview and research, the students will discover the economic growth, the art of selling, the consumer and government regulation as it relates to the fast-foods industry.

Middle school level

Time needed: 4 weeks based on 5 – 40-minute periods.

Skills: Reference skills

Interviewing techniques

Survey techniques

Application of data

Organization: Activities are arranged in sub units

1. Fast-foods is big business
2. The art of selling
3. The consumer

Methods: Activities are suitable for large group, small group instruction and independent study.

SOCIAL STUDIES

Concepts

1. The fast-foods chains run the gamut from gourmet restaurants specializing in crepes to the familiar hamburger outlets. Examples are found throughout America and have extended to Europe and Asia.

2. Large chains are listed on the New York Stock Exchange.

3. Some chains have massive advertising campaigns using all media.

4. Government agencies regulate sanitary conditions and require nutritional analysis statements of foods produced which are available upon request.

5. The nutritional habits of the American people have undergone vast changes during the last ten years.

SOCIAL STUDIES RESOURCES

Current Materials, any Newspapers and Magazines

Books:

Hoyt, Murry; *The Young Investors Guide to the Stock Market*, N.Y. Lippincott, 1972

Margolius, Sidney; *The Great American Food Hoax*, N.Y. Walker Publishing Co., 1971

Paradis, Adrain A; *The Bulls and the Bears*, N.Y., Hawthorn, 1971

Pompian, Richard O.; *Advertising*, N.Y., F. Watts, 1970

Rosenbloom, Joseph; *Consumer Complaint Guide*, N.Y., CCM Info. Corp., 1971

Sanford, David; *Who Put the Con in Consumer*, N.Y., Liveright Publishing Co., 1972

Smith, Adam; *The Money Game*, N.Y., Random House, 1967

Sterling, Dorothy; *Wall Street: The Story of the Stock Exchange*, Garden City, N.Y., Doubleday, 1955

Sullivan, Mary B., *Careers in Government*, N.Y., Henry E. Walck, Inc., 1964

Film Strip :

"The Demand", E.B. Films, 9161, 1958

"Persuasion Techniques and Propaganda" Popular Science Publishing Co., 355 Lexington Ave., N.Y. 10017, 1968

Film Strip, Cassette or Record :

"Consumer Ed. Series" Doubleday Multimedia, Box 11607/1370 Reynolds Ave., Santa Ana, Cal. 92705, 1971

"Consumer Ed. Part I"; AIMS Inst. Media Services, Box #1010, Hollywood, Cal. 90028; 1971

"Buyer Beware", Guidance Assoc. N.Y., Harcourt, Brace, Jovanovich, Inc. 1972

EVALUATION

Behavorial Objectives:

1. The student will identify large chain fast-food businesses listed on the New York and American stock exchanges and record business changes daily over a four-week period, and interpret changes in the stock market to the satisfaction of the instructor.

2. The students will analyze three or more advertising campaigns for hamburgers and determine which groups the advertiser is trying to reach, how the groups are being persuaded and what need in the group the advertiser is "speaking to" to the satisfaction of the instructor.

3. The students will predict what type of fast-food business might succeed in the immediate area by surveying a population sample to determine likes and dislikes to the satisfaction of the instructor.

4. The student will compare two or more fast-food restaurants from the point of view of the "wise" consumer given facts concerning internal and external environment (atmosphere for eating), design, quality of service, quality of food, choices of food, price and advertising, and write a critical review of the restaurants for a local newspaper to the satisfaction of the instructor.

1. The student will prepare a list of all fast-food restaurants known to them in the immediate area. Students will add other names to the list from personal experience. Question: What is the same about these restaurants? What is different? How are these restaurants different from traditional restaurants?

2. The students will find which fast-food chains are listed on the stock exchange reports. (New York, American and Over the Counter listings in daily newspapers).

3. The students will define the meanings of the notations listed for stock transactions. Work sheet: see appendix.

4. The student will choose a stock entry and record the notations on the chart each day for a time period as set by the instructor.

5. The students will define terms used to designate types of advertising and group television commercials in the appropriate column. See Appendix: Worksheet activity 5.

6. The students will collect ads from newspapers and magazines and prepare a chart similar to the chart done for T.V. commercials.

7. The students will construct commercials and printed ads for their own imaginary fast-foods restaurant.

8. Conduct a poll of each class to determine which of local eating places is each student's first choice (for an ordinary occasion). List the eating places on the board. Count the students using hatch marks beside the entry, count and convert to percent.

9. The students will prepare a survey form for use in the neighborhood. Questions should be developed to give the information necessary to predict what kind of restaurant would be successful.

10. Following a field trip or individual visit to a fast-food restaurant, the students will complete an analysis worksheet. See Appendix, Activity 10.

Supplementary Activities

11. The students will research to find past American eating habits and compare past and present.

12. The students will write to fast-food central offices for information on buying a fast-foods franchise.

13. The students will write for stock prospectus and annual report of one company.

14. The students will design their own fast-foods place and select a location.

15. The student will report on government regulation of restaurants.

Activity 3 – Discuss each entry

Stock Market Quotations

High, highest price during the year		Low, lowest during the year
76 7/8		44 1/8
Company	Dividend	regular money paid for each share of stock held. Usually paid 4 times a year (no regular dividend)
Fast-Food		
PE ratio	compares the price to the company earnings	Sales in Hundreds
40		1332* * actual number traded
High, highest cost today		Low, lowest cost today
50 3/8		47
Last price when market closed		Net change during the day
49 3/4		+ 2¼ price increased $2.25 per share

Activity 5: Find an example of each type

Product – example: Pantyhose

Endorsement – Football player wearing hose

Band wagon

Come on

T.V. Hard Sell

Soft Sell

Product	Time of Day	How was it done	Who was it directed to

Activity 10: Explain briefly each entry, where possible.

Design of building

Colors used

Music

Cleanliness

Parking area

Time required for order

Quality of food

Attitude of personnel

Prices

FAST-FOODS SCIENCE UNIT

The science unit adds depth to the study of fast-foods as an example of marketing and distributing.

The students will seek answers to two basic questions.

1. Do fast-foods meet the nutritional needs of people?

2. How do fast-food chains maintain a high standard of quality for their products?

The science unit consists of investigating the nutritional needs of people and the nutritional content of fast-foods. The students will evaluate techniques of maintaining freshness, nutrition and flavor.

FAST-FOODS SCIENCE UNIT

Middle School level

Time needed: 4 weeks, based on 5 – 40-minute class periods.

Skills: Graphic skills, communication, reference skills, laboratory skills, application of data

Organization: Activities are arranged into five sub-units:

1. The Food Groups
2. Let's Say it in Metric
3. The Nutrients
4. The Label
5. Fast Foods

Methods: Activities are suitable for large group, small group instruction, individual instruction or independent study.

THE ORGANIZATION OF NUTRITION AS A SCIENCE

Major concepts:

1. Foods can be classed into four major food groups: meat, dairy, grain, fruit-vegetables.

2. Five classes of nutrients can be identified as: Protein, Carbohydrates, Lipids, vitamins and minerals.

3. A balanced diet is one selected from the four groups that provide adequate nutrients and bulk.

CARBOHYDRATES

Major concept:

Carbohydrates are composed of sugars and starches and are required by each cell for energy to carry on the functions of life.

Sub concepts:

1. 40% of the diet is carbohydrates according to nutrition standards.
2. The carbohydrate content of the diet should be adjusted according to calories needed by the individual.
3. Some carbohydrate foods are empty of vitamins and minerals.
4. Fruits, vegetables, and enriched or natural breads, cereals and bakery products can provide vitamins and minerals as well as carbohydrates.
5. Foods can be tested for sugar and starch. There are different kinds of sugar and starches.
6. Alcohol drinks are high calorie, high carbohydrate foods that are part of the empty calorie group.

PROTEIN

Major Concept :

1. Proteins are required for growth and maintenance of the human organism.

Sub Concepts:

1. Twenty different amino-acids make up the proteins. The body puts amino-acids together for specific uses.

2. Protein is the basic substance from which cells are made.

3. Protein can be found in the meat group, the dairy group, seeds of plants and to a lesser extent, plant material.

4. The Food and Nutrition Board of the Academy of Sciences recommends for healthy individuals the following protein requirements measured in grams:

   One gram per kilo of body weight.

   Men – 70 grams
   Women – 58-98 grams
   Children – 1-6 years, 32, 40, 52 grams
   Boys – 9-12-15 years, 60, 75, 85 grams
   Girls – 9, 12, 15 years, 55, 62, 58 grams

LIPIDS

Major concept:

Fatty acids, polyunsaturated fatty acids, related lipids such as cholesterol, lecithin and other glyceral lipids act as both energy sources and the raw material from which essential hormones and other body structural compounds are made.

Sub concepts:

1. Lipids occur in nature in fats and oils derived from plants or animals.
2. Lubricating "oils" are not fatty acids and cannot be used as food.
3. Fat consumption in the United States has increased during the past 25 years to an average level of 40% of the diet.
4. Polyunsaturated fats are the materials used to form some hormones and nerve tissues.
5. A small amount of polyunsaturated fats is essential for health and growth.
6. Hydrogenating oils in vegetable shortening, peanut butter and margarine have limited the polyunsaturated qualities of these foods.
7. Cholesterol is made in the liver and is the raw material from which vitamin D, the sex and adrenal hormones and bile salts are made.
8. All fats and other lipids must be broken into very tiny pieces to be taken into the cells for use.
9. Lecithin with some vitamins and the mineral magnesium cause breaking of fats and cholesterol into tiny pieces.
10. Failure of these substances to break up causes them to stick to the walls of the arteries causing "hardening" of the arteries, high blood pressure, and heart attack.

11. Heart and blood pressure illnesses are the leading cause of death in the United States today.

12. Refining processes reduce the lecithin content of oils.

13. The lecithin, vitamin, magnesium balance must be sufficient to process the amounts of fats eaten and cholesterol made in the body and gained from other foods.

14. Additives, used to prevent spoilage of fats and oils, and heat refining processes destroy the natural chemicals which keep oils fresh and which are part of the nutrition necessary to digest the oils.

15. Spoiled or rancid oils or fats slow down digestion and produce toxic substances in the body.

16. Many commercial food products from potato chips to cake mix are fried in or contain rancid oils or fats.

VITAMINS

Major concepts:

1. All body cell functions depend on the presence of vitamins.

2. Deficiency diseases result from specific vitamin deficiencies.

3. Seventeen different substances have been classed as vitamins or vitamin-like substances.

4. Vitamins have been classed as being water soluble or fat soluble.

Sub concepts:

1. Twelve, possibly more, substances have been identified and comprise the B vitamins or B complex.

2. Vitamins A, C, D, E and K have been identified as to structure, source and function.

3. Four vitamin-like compounds have been identified as substances found in the cells but are not required by the human diet because the body is able to manufacture the substances from other raw materials eaten.

MINERALS AND WATER

Major concept:

The human body contains eight major minerals and eight trace elements. A balance of these elements is necessary for health and growth. All cell functions are carried on in a watery environment.

Sub concepts:

1. Calcium is found throughout the body. The teeth and bones contain a highly concentrated form of calcium with phosphorous in the form of tri-calcium phosphate.

2. Calcium is necessary for normal clotting in the blood.

3. Phosphorous in combination with protein is the substance that makes muscles in the body move.

4. Iron is found in the blood cells and is the agent that carries oxygen to each cell.

5. Sodium is found in the entire watery environment of the body and is necessary for all cell processes.

6. Potassium is necessary for cell formation and energy.

7. The chlorine is represented by the chloride iron combined primarily with sodium.

8. Magnesium is essential in energy reactions, growth, and change of lipids and protein.

9. Sulphur is found in many amino-acids, the building blocks of protein.

10. The trace elements are identified as copper, iodine, manganese, molybdenum fluoride, selenium, zinc, and chromium. These elements are found in tiny amounts.

ROLE OF SCIENCE IN NUTRITION

Major concepts:

1. Through experimentation, scientists have determined nutritional needs of people and continue to reassess findings in the light of new data.

2. Scientists have developed means of mass production of foods.

3. Scientists have developed chemicals to maintain food freshness over longer periods of time.

4. Scientists have synthesized chemicals called vitamins to enrich foods where the natural vitamin is missing.

Sub concepts:

1. Some food additives may be detrimental to human health.

2. Excessive consumption of some vitamins may be toxic.

3. The nutrition of the average American today is conclusive to rising levels of cardio-vascular illness and digestive illness.

RESOURCES

Brown, Myrtle L. and Pike, Ruth L., *Nutrition: An Integrated Approach*, John Wiley and Sons, Inc., New York, New York, 1967.

Davidson, Ralph P, *"The Burger That Conquered a Country"*, *Time*, September 17, 1973, Volume 102, No. 12, Pgs. 84-90.

Davis, Adelle, *Let's Eat Right to Keep Fit*, Harcourt Brace, Inc., New York, N.Y. 1954.

"Europe, a Wolfish Hunger for U.S. Fast-Foods," *Business Week*, October 21, 1972, Pgs. 34-35.

Frieden, Earl; *"The Chemical Elements of Life"*, *Scientific American*, July, 1972, Volume 227, Pgs. 52-57.

Gallup; *"Favorite Deep-Fried Fare"*, *Food Service Marketing*, February, 1974, Volume 35, Pgs. 12, 16, 18, 70.

Gallup; *"The Hasty Repast, Snacks"*, *Food Service Marketing*, October, 1973, Volume 10, Pgs. 10, 84-86.

Gallup Survey; *"Patterns of Food Service"*, *Food Service Marketing*, Sept., 1973, Volume 34, Pgs. 10, 66-68.

Gallup Survey; *"Young America Dines Out: How Youth Voted in December, 1972"*, *Food Service Marketing*, Volume 34, Pgs. 12-20.

Hunter, Beatrice; *Consumer Beware!* Simon and Schuster, New York, N.Y., 1954.

"John Brown's Buddy; Lum's Beer and Hot Dog Chain", *Time*, August 28, 1972, Volume 100, Pg. 57.

Kermode, G.O.; *"Food Additives"*, *Scientific American*, March, 1972, Volume 226, Pgs. 15-21.

Kretchmer, Norman; *"Lactose and Lactase"*, *Scientific American*, October, 1972, Volume 227, Pgs. 70-78.

Margolius, Sidney; *"How Healthy are Health Foods?", Readers Digest,* November, 1973, Volume 103, No. 619, Pgs. 157-160.

Morgenstern, J.; *Roadside Gourmet: Pop Goes the Food", Newsweek,* September 25, 1972, Volume 80, Pgs. 76-78.

Nolan, William A., M.D.; *"The Only Way to Lose Weight", Readers Digest,* November, 1973, Volume 103, No. 619, Pgs. 155-157.

Patton, A. Rae; *The Chemistry of Life,* Random House, New York, N.Y., 1970.

Stare, Fredrick J., M.D.; *"You and Your Diet", Readers Digest,* November, 1973, Volume 103, No. 619, Pgs. 152-155.

Tannenbaum, Beulah and Stillman, Myra; *"Understanding Food, The Chemistry of Nutrition,* McGraw-Hill Book Company, Inc., N.Y., N.Y., 1962.

Turner, James S. ; *The Chemical Feast,* Grossman Publishers, N.Y., N.Y., 1970

Schuman, Joan; *"Salt to Taste: Is it too Much?" Science World,* Nov., 8, 1973, Pgs. 9-12.

"The Ins and Outs of Human Energy", Science World, Mar. 14, 1974, Pgs. 9-11.

"National Sweet Tooth:A Health Headache?" Current Science, Vol. 59, No. 22, March 13, 1974, Pgs. 4-7.

THE WONDER OF YOU

Pamphlet — *The Wonder of You* CSN-6101

Your Guideline to Nutrients
American Institute of Baking, Publications
400 E. Ontario Street, Chicago, Ill. 60611
15¢

Food – A Key to Better Health
The Nutrition Foundation Inc.
99 Park Avenue, New York, N.Y. 10016
30¢

Film Strip
Cassette — *The Great Nutrition Robbery*
Westinghouse Learning Press
100 Park Avenue, New York, N.Y. 10017

SCIENCE RESOURCES

The Nutrition Ladder
Florida Citrus Commission, 1115 E. Memorial Blvd. Box II, 148
Lakeland, Florida 33802

The Kroger Basic 4 Cookbook
The Kroger Co., Consumer Information Service, 1014 Vine Street
Cincinnati, Ohio 45201

Nutritive Value of Foods 1971	Order number	092A 30¢
Nutrition Sense and Nonsense		091A Free
Calories and Weight		084A 30¢

Film strip
Cassette

The Metric System: The Universal Language of Measurement
Pathescope Educational Films, Inc., 71 Weyman Ave.
New Rochelle, N.Y. 10802 1971

The Drama of Food I (salt, sugar)
The Drama of Food II (meat group)
Filmstrip House, Inc. 435 Park Ave., South, New York, N.Y. 10016

Transparencies
Elementary level

Health 371.70 SR, 371.7 A-SS Nutrition
Creative Visuals, Div. Gamco Ind., Inc.,
Box 1911, Big Spring, Texas 1969

Transparencies

Ortleb and Cadice, *Foods and Your Health;*
Milliken Publishing Co., St. Louis, Missouri 1969

Book

Gerard W. Kelly, *Metric System Simplified,*
Sterling Publishing Co., Inc., New York, 1973

Book

S. Carl Hirsch, *Meter Means Measure*
The Viking Press, New York 1973

Behavioral Objectives:

1. The students will identify the four major food groups and classify common foods into the group or groups with 90% accuracy.

2. The students will name the five classes of nutrients and identify the major uses of the nutrients by the body and major sources of the nutrients with 100% accuracy.

3. The students will measure mass volume and distance using metric measures. The students will compute quantities of calories and nutrients using metric notation to the satisfaction of the instructor.

4. The students will read new FDA (74) labels for grams of nutrients, calories, % of daily requirement, and food additives and compare foods as to nutrition and degree of naturalness to the satisfaction of the instructor.

5. The students will compute personal nutritional needs based on recommended minimum requirements as established by the Food and Nutrition Board of the Academy of Sciences and identify foods providing these requirements to the satisfaction of the instructor.

6. The students will estimate the nutritional value of fast-food products in terms of percent of daily requirements, grams of protein and calories. The students will list supplements necessary to balance a diet including one fast-foods meal per day to the satisfaction of the instructor.

THE FOOD GROUPS

Activity 1. From a list of food given to the students have students suggest possible ways to classify the foods. There are many ways other than the "Four Food Groups", but which ways are most useful in selecting foods for a balanced diet?

Work sheet activity – see Science Appendix

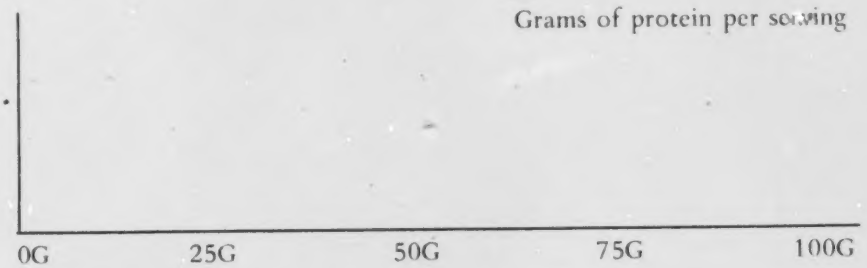
Activity 2. Construct posters showing the four food groups or make a collage of cutouts for each group.

The Nutrients: Activities

Activity 1. The students will define protein as a nutrient found in the four food groups and having special properties by researching to find answers to the following questions:

1. What chemical elements are found in protein?
2. Explain how proteins are constructed of Amino acids.
3. Explain how proteins are originally produced in nature.
4. Where do we get the proteins necessary for good health?
5. How is protein used in our bodies?
6. How many grams of protein each day are recommended as a requirement for a person 13 years old weighing 50 kilograms?
7. How many grams of protein do you need each day?

Activity 2. The students will construct a bar graph showing protein grams per serving of foods on the reference sheet. Arrange the foods in order from most protein to least protein.



Protein content is available in any table of food analysis.

Activity 3. Make a poster showing "complete" protein foods using cutouts of pictures, drawings or labels from food packages.

Activity 4. Construct a model of an amino-acid showing the atoms present in the molecule.

Activity 5. Plan a menu for 5 days showing the estimated protein gram content for each day. Estimate the cost of the protein foods.

	Breakfast	Lunch	Dinner	Snacks
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Total grams protein				
Cost of food				

Activity 6. The students will experiment to show presence of carbohydrates in common foods using the Benedict test for sugar and iodine test for starch.

Sample lab sheet
Testing foods for sugar, See Appendix and Starch

Activity 7. The students will research to determine the uses of carbohydrates in the diet.

Activity 8. Through large group instruction, the students will classify the lipids (fats) as saturated fatty acids, unsaturated fatty acids, polyunsaturated fatty acids, hydrogenated fats, cholesterol and other glycerols, by the role of each in the diet and sources of each kind of lipid nutrient.

Activity 9. The students will construct a chart comparing saturation qualities of common fats and oils.

Activity 10. The students will write a report on the possible role of fat and cholesterol in hardening of the arteries and the possible solutions to this medical problem based on current scientific theory.

Activity 11. The student will experiment to compare digestibility of the 3 fats by construction of a model of the small intestine, using pancreatin and pepsin bile salts as the digestive agent.

Sample lab sheet

Activity 12. The student will construct a chart showing Vitamins A, C, D, E, thiamine, riboflavin and niacin, the uses, sources and recommended daily amount needed.

Activity 13. The students will write a short summary of vitamin deficiency diseases, scurvy, rickets, pellegra and night blindness.

Activity 14. The students will construct a chart showing the minerals, iron, calcium, phosphorus, the need for these nutrients, the amount needed and common food sources.

Activity 15. The students will construct an analysis of the food a student had yesterday by completing the following form:

Breakfast	Lunch	Dinner
2 eggs	8 oz. pizza with tomato sauce and cheese	fried chicken 8 oz.
1 orange		mashed potatoes 4 oz.
8 oz. milk		gravy
1 piece white toast with margarine	8 oz. milk	peas 4 oz.
	3 oz. canned peaches	mixed salad with oil and vinegar

Snacks

1 apple – medium size
6 peanut butter crackers
1 Pepsi Cola – 16 oz.

List the Foods which are major sources of:

Protein
Fats
Carbohydrates
Vitamin A
Vitamin C
Thiamin
Riboflavin
Niacin
Iron
Calcium
Phosphorous

Activity 16. The students will construct a 3 day menu containing necessary quantities of the nutrients balanced over a three day period.

THE LABEL

Lab Activity

Activity 1. The student will measure the calories in a peanut using a calorimeter made from a coffee can.

Lab work sheet – See Appendix

Activity 2. The student will measure calories in other foods using tobacco ashes as a catalyst.

A small sugar cube will burn if first dipped in tobacco ashes. Some other dry foods will burn.

Activity 3. The student will research to find the number of calories needed by people for various activities and body weights.

Activity 4. Using labels from 3 cereal and 2 cake mix products, the students will construct a chart comparing information on the "new" Food and Drug Administration required labeling:

Food	Calories	Gms. Protein	% A	% C	% Thiamin	% Riboflavin

Question – Which product is greatest in calories?
Which product is least in calories?
Which is most valuable?
Which is greatest in nutrition?
Which is least in nutrition?

Activity 5. The students will make a label for a dinner of their choice showing the nutrient content in calories, gms. protein and % of nutrients.

Resource: Nutrition table

Activity 6. Large group instruction on identification need and use of food additives or listening station activities for students to find answers to the following questions:

1. Is the additive used to maintain freshness?
2. Is the additive used to enhance color or flavor?
3. Does the additive increase the nutrition?
4. Is there another reason for the additive?

Activity 7. The student will read "new" Food and Drug Administration labels for actual product content. The ingredients are listed from most to least in the product. Students will identify additives.

Activity 8. The students will research to find possible results of an excessive intake of sugar in the diet.

Activity 9. The students will experiment to determine the effects of excessive salt on living cells.

Sample lab sheet – See Appendix

Activity 10. The students will research to find effects of excessive salt intake in people and infer the relationship between salt intake and hypertension.

LET'S SAY IT IN METRIC

Activity 1. Have the students measure objects in the room in centimeters and meters using small metric rulers and meter sticks.

Tab sheet: See Appendix

Activity 2. Students will measure colored liquids in millileters using graduated cylinders and test tubes.

Lab sheet: See Appendix

Activity 3. Evaluation lab sheet to test measurement skills using milliliters (ml)

Activity 4. The students will plan a lab to give experience in weighing one to ten grams. The students will complete the lab and weigh a one gram weight successfully on a balance scale.

Activity 5. Introduce the metric prefixes and compare to place value system.

Kilo	– thousands
Hecta	– hundreds
Deca	– tens
Meter, liter, gram	– units
Deci	– tenths
Centi	– hundredths
Milli	– thousandths

Kilogram	– kg
Hectogram	– hg
Decagram	– dkg
Gram	– g
Decigram	– dg
Centigram	– cg
Milligram	– mg

Complete chart for liters and meters

FAST-FOODS

Activity 1. Have students find out nutrition content of foods from fast-food restaurants. (Inquire about additives also)

Activity 2. Examine the state sanitary code, available from boards of health. Have a resource person, owner or manager, or health officer explain the needs for careful sanitation.

Activity 3. Plan a week's menu using fast-foods for one meal each day. Estimate nutrition and count calories.

PRACTICE WORK SHEETS

Activity 1. hamburger, corn bread, green beans, turkey, turkey stuffing, peaches, watermelon, fish, ice cream, cottage cheese, yogurt, turnips, spinach pork chops, liver, peanuts

Meat Group	Dairy Group	Cereal & Grain Group	Fruit and Vegetable Group

Peanuts could be in either the _____ group or the _____ group, because they are seeds that have value similar to meat.

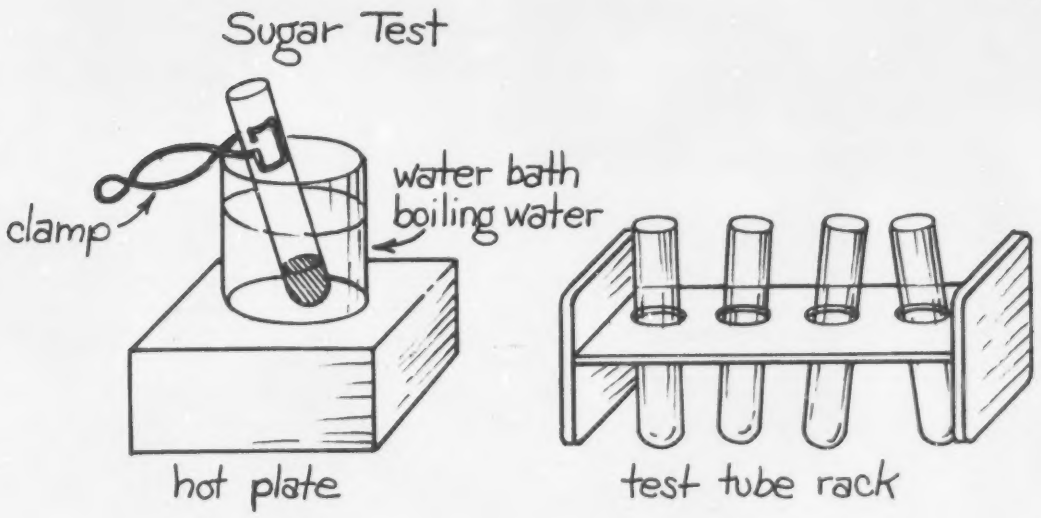
TESTING FOR SUGAR AND STARCH

Activity 2.

Purpose: To compare the results of a Benedict's solution test with a known sugar to another food, thereby proving whether or not sugar is present in the food.

To compare results of an iodine test on a known starch with other foods to determine if starch is present.

Materials:
5 ml Karo syrup in 50 ml water
Benedict's solution (available in drug stores)
Hot plate or heat source
Pan to be used as water bath
Test tubes
Test tube clamp
Graduated cylinder
Test tube rack
small dishes
Iodine (dissolved in alcohol or potassium iodine solution "white iodine")
Eye droppers
Corn starch, corn starch cooked in water
Assorted foods



SUGAR

Procedure:

A. Measure 5 ml sugar water in a graduated cylinder and pour into a test tube.

B. Add 3 ml Benedicts solution.

C. Place in a hot water bath for 2-3 minutes and observe change.

D. Test other foods in the same way. If the food is a solid, cut it into small pieces and add 5 ml water to the test tube.

E. Make a chart and record results.

Observations:

Food	Color change	Sugar is present
Karo	Green to yellow to red	X
Salt	No change	– –
Milk		
Bread		
Other		

STARCH

Procedures:

A. Put a pinch of cornstarch on a small dish.

B. Put several drops of iodine solution on the starch. Observe change.

C. Add several drops of iodine to 5 ml cornstarch solution. Observe change.

D. Test other foods.

Observations:

Food	Color change	Starch is present
Cornstarch dry	Turned black	X
Cornstarch solution	Turned purple	X
Milk	No change	
Other foods		

DIGESTING FATS

Activity 3:

Purpose: To determine if there is a difference in the digestibility of saturated, unsaturated and poly unsaturated fats.

Materials:
1 cc lard (saturated)
1 ml olive oil (unsaturated)
1 ml safflower oil (poly unsaturated)
small beakers or baby food jars
100 ml solution containing 12 pepsin, 12 pancreatin and a pinch of bile salts.

Procedures:
A. Label jars A, B, and C
B. Put fat or oil in each jar and record on chart.
C. Add 25 ml pepsin solution.
Observe over 3 or 4 days.
D. Record results on chart

Observations:

	Fat	Change in fat	Change in solution
Jar A	Lard		
Day 1		No change	No change
Day 2		Smaller	Getting cloudy
Day 3			
Jar B			
Day 1			
Day 2			
Day 3			
Jar C			
Day 1			
Day 2			
Day 3			

Results: Did any fat seem to digest more quickly?
Why do you think it happened as it did?

THE LABEL

Activity 1: **Measuring Energy in Food**

Purpose: To determine the number of calories in food by burning the food and measuring the change in temperature of water heated by the food.

Materials:
125 ml Erlenmeyer flask
Test tube clamp
Graduated cylinder
Clay and Pin
Food
Scale (mg)
Thermometer (c)
Coffee can
Masking tape

Procedure:

A. Weigh food
.39 or less

Weight of food _____

B. Pour 50 ml water into flask

C. Insert in calorimeter and clamp

D. Put thermometer in flask.
Measure temperature.
Record

Beginning Temp. _____

E. Fasten food on pin.
Stick pin in clay.
Place under flask 2 cm from bottom

F. Light food with match.
As soon as food is completely burned, record temperature of water.

G. Remove ash from pin.
Weigh ash

Ash weight _____

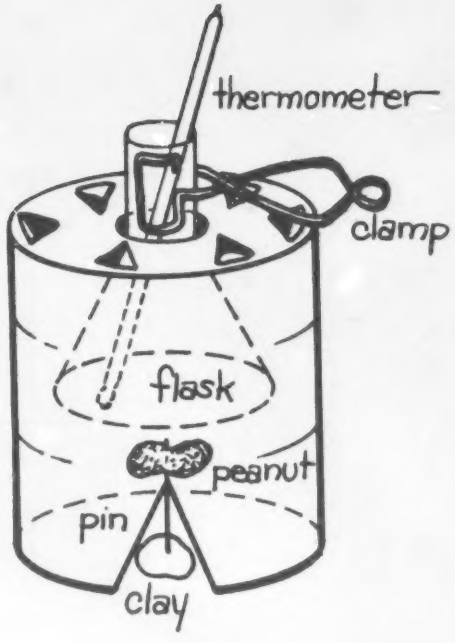
H. Fill in chart and compute calories.

Food	Weight in Grams	Weight of Ash	g Burned	Ml Water	Beginning Temp	Ending Temp	Temp. Change	Calories

1. _____ grams (ml) of water X _____ °C = _____ calories

2. $\frac{\text{calories}}{\text{g. food}}$ = _____ calories per gram

3. _____ calories = _____ kilo calories



2 lb. coffee can
Punch holes.
Tape sharp edges.

THE LABEL

Activity:

Demonstration: Celery and Salt

Materials: celery
jars
salt water
food coloring

Procedures:

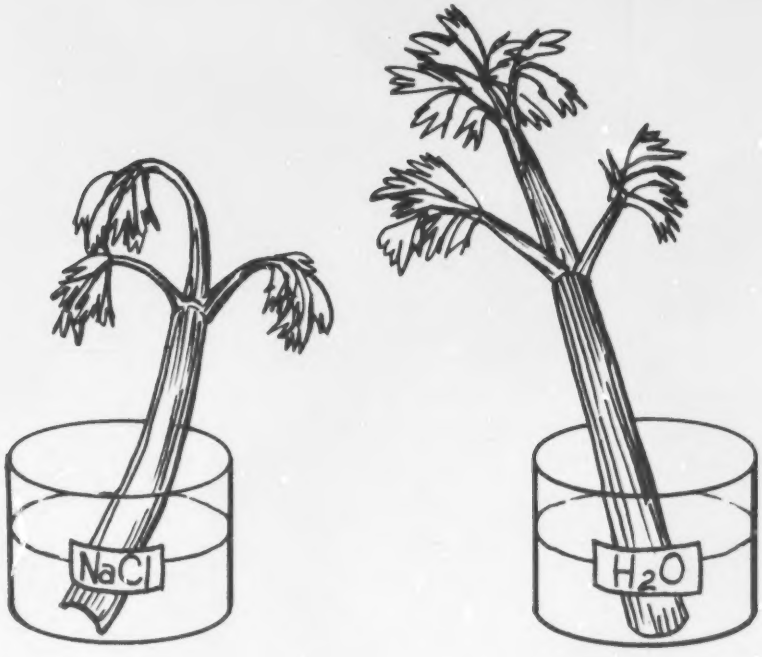
A. Place a stalk of celery in a jar containing salt water and food coloring.

B. Place a stalk of celery in a jar containing water and food coloring.

C. Compare the 2 stalks for several days.

Results:

1. What do you think happened to the cells of the celery in the salt water?
2. What effect do you think salt might have on other cells?
3. Could there be a difference because of the amount of salt?
4. Do fish live in Great Salt Lake in Utah? How would you find out?



LET'S SAY IT IN METRIC

Lab Worksheet # 1 **Measurement**

A. Linear measurement

At the end of this exercise you will be able to measure linear space in meters and centimeters accurately.

1. Label the line above in centimeters.
2. The abbreviation for centimeters is cm.
3. Place A measures _____ cm
   Place B measures _____ cm
   Place C measures _____ cm
   Place D measures _____ cm
4. The distance between B and C is _____ cm.
5. The distance between A and B is _____ cm.
6. Draw a square 5 cm by 5 cm.
7. Measure the length of the table in meters and centimeters.
8. There are _____ cm in one meter.
9. Your height is _____ meters or _____ cm.
10. Find an object in the room that is 10 cm long.
    Find an object in the room that is 2 cm long.
    Find an object in the room that is 1 cm long.
    Find an object in the room that is less than 1 cm.

MEASUREMENT

Purpose: Measure liquid in mls
Observe color change
Estimate 10 ml, 1 ml

Procedure:

A. Label test tubes A, B, C, D.

B. Measure 10 ml red and pour into test tube A.

C. Measure 10 ml yellow and pour into test tube B.

D. Estimate 10 ml blue, pour into test tube C.

E. Measure 1 ml green, pour into test tube D.

F. Draw the test tubes showing color and water level.

G. Add exactly 5 mls as follows:

1. To test tube A, 5 mls blue. Observation _____

2. To test tube B, 5 mls yellow. Observation _____

3. To test tube C, 5 mls blue. Observation _____

4. To test tube D, 5 mls yellow. Observation _____

Groups of 4 or 5 people

Materials:

test tube rack
5 test tubes labeled A, B, C, D, E
5 cups colored water, 1 cup water

Procedure:

1. Add 5 ml red to B
2. Add 5 ml yellow to A
3. Add 10 ml red to D
4. Add 10 ml yellow to D
5. Add 5 ml water to E
6. Add 10 ml red to *both* A and D
7. Add 5 ml yellow to *both* B and C

A now has _____ ml _____ (color)
B now has _____ ml _____
C now has _____ ml _____
D now has _____ ml _____

Do your own procedure now – Record what and how much

A _____ ml _____ ml = _____ total ml _____ color
B _____ ml _____ ml = _____ mls _____ color
C _____ ml _____ ml = _____ mls _____ color
D _____ ml _____ ml = _____ mls _____ color
E _____ ml _____ ml = _____ mls _____ color

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Guidance Associates; *People Who Influence Others,* Part IV, Advertising Executive, 1972

Pathescope Educational Films; *Careers in Food Service*, 1973

GUIDANCE APPENDIX

Sources of Additional Information

Advertising Federation of America
655 Madison Avenue
New York, N.Y. 10021

America Marketing Association
27 E. Monroe Street
Chicago, Ill. 60603

Association of Buying Offices
100 W. 31st Street
New York, N.Y. 10001

Committee on Careers in Retailing
National Retail Merchants Assn.
100 W. 31st Street
New York, N.Y. 10001

Council on Opportunities in Selling
630 Third Avenue
New York, N.Y. 10017

National Assn. of Purchasing Agents
11 Park Place
New York, N.Y. 10007

National Assn. of Wholesalers
1725 K. Street, N.W.
Washington, D.C. 20006

National Restaurant Assn.
1530 Lake Shore Drive
Chicago, Ill. 60610

Sales and Marketing Executives, International
630 Third Avenue
New York, N.Y. 10017

State Department of Education
Department of Distributive Education
Trenton, N.J.

INTRODUCTION TO VOCATIONS

Interest Inventory

Name _____ Class _____

Check the answer which best applies to you.

1. Which do I prefer to do?
   a. _____ Work with things-motors, tools.
   b. _____ Work with people-sports, clubs.
   c. _____ Work with facts and ideas-writing, debating.

2. Which subject area do I like best?
   a. _____ English
   b. _____ Social Studies
   c. _____ Science
   d. _____ Math
   e. _____ Physical Ed.
   f. _____ Art
   g. _____ Reading
   h. _____ Music
   i. _____ Foreign Language

3. Which 3 *career* areas am I most interested in?
   a. _____ Health Careers
   b. _____ Environmental Careers
   c. _____ Manufacturing Careers
   d. _____ Transportation Careers
   e. _____ Communications & Media Careers
   f. _____ Construction Careers
   g. _____ Marketing & Distribution Careers
   h. _____ Agri-Business & Natural Resources Careers
   i. _____ Marine Science Careers
   j. _____ Public Service Careers
   k. _____ Personal Service Careers
   l. _____ Hospitality & Recreation Careers
   m. _____ Fine Arts & Humanities Careers
   n. _____ Consumer & Home-making Related Careers
   o. _____ Business & Office Careers

4. List *3 jobs* that you are most interested in.
   a. _____
   b. _____
   c. _____

5. What are the kinds of things I like best to do in my spare time? (List 3)

   1. _____
   2. _____
   3. _____

6. Which of my school extracurricular activities or community or club activities have given me the greatest pleasure and satisfaction? (List 3)

   1. _____
   2. _____
   3. _____

7. According to my grades, what things do I do best?

   1. _____
   2. _____
   3. _____

8. List *five things* that you feel you do well (Above average).

   1. _____
   2. _____
   3. _____
   4. _____
   5. _____

9. List *three* things that your parents think you do well.

   1. _____
   2. _____
   3. _____

10. What does your family desire for your future?

11. Do you like to: (Answer yes or no)

1. Be of service to people?	_____	7. Travel	_____
2. Work out of doors	_____	8. Do detailed work	_____
3. Read	_____	9. Explore	_____
4. Do things with your hands	_____	10. Investigate	_____
5. Study	_____	11. Discover	_____
6. Operate machinery	_____	12. Work with people	_____

12. What are your outstanding characteristics?

_____

13. Are the above characteristics related to the job you think you want?

_____ Yes _____ No

14. Would you prefer to work: (Check the method you prefer)

a. ___ by the hour

b. ___ for a fee

c. ___ for a commission

d. ___ by piece work

e. ___ for a salary

15. Would you like your teacher to talk about jobs this year?

____ Yes ____ No

GUIDE FOR VOCATIONAL SPEAKERS

I. Description of the occupation

A. Nature of the work – hours, working conditions.
B. Advantages – associations, unions, social status, pensions.
C. Disadvantages – hazards, strains.
D. Outlook – supply and demand.

II. Requirements of the occupation

A. Education and training – amount, kind, time, cost.

1. important school subjects
2. skills and abilities most needed
3. places training is available
4. special requirements – licenses

B. Personal qualifications – ability, personality, interests, appearance, age, sex, work well with others, follows directions, orderly, outgoing, neat, punctual, perseverance, and industry.

C. Physical qualifications

III. Benefits of the occupation

A. Financial – pay scale and how paid
B. Security – pension, insurance
C. Opportunity for advancement

IV. Sources of additional information

UNIT EVALUATION

1. How helpful was this guide in teaching about careers?

   _____ Of much help
   _____ Of some help
   _____ Of little or no help

2. In what specific way was it most helpful?

   _____

3. In what ways was it least helpful?

   _____

4. Do you have any specific suggestions for improvement?

   _____